REMARKS

Obviousness-type Double Patenting Rejections

The Examiner has raised a provisional obviousness-type double patenting rejection in relation to claims 1-6 in view of claims 11-18 and 21-28 of co-pending applicant's Application Serial No. 10/411,552. Applicants acknowledge the Examiner's rejection for obviousness-type double patenting. Upon indication of allowance, Applicants will file a terminal disclaimer, if appropriate.

The Examiner has also raised a provisional obviousness-type double patenting rejection in relation to claims 1-6 in view of claims 1 and 20 of co-pending applicant's Application Serial No. 10/639,955. Applicants acknowledge the Examiner's rejection for obviousness-type double patenting. Upon indication of allowance, Applicants will file a terminal disclaimer, if appropriate.

Rejection under 35 U.S.C. §112, First Paragraph

The Examiner rejects claims 1-6 under 35 U.S.C. §112, first paragraph, for an alleged lack of enablement. The Examiner contends that the scope of the claims is not commensurate with the scope of enablement in the specification. Specifically, the Examiner asserts that the specification does not reasonably provide enablement for the full scope of the claims. Applicants respectfully traverse.

To meet the enablement requirement of 35 U.S.C. §112, first paragraph, a specification must contain a sufficient description to enable one skilled in the art to make and use the claimed invention (*See, e.g., Chiron Corp. v. Genentech, Inc.*, 363 F.3d 1247, 1253 (Fed. Cir. 2004); MPEP §2164.01). A specification does not need to explicitly disclose every detail, and may omit what is well known in the art (*In re Buchner*, 929 F.2d 660, 661 (Fed. Cir. 1991); MPEP 2164.01). To make and use an invention may require experimentation even if the specification is enabling (*In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988); *Atlas Powder Co. v. E.I. du Pont de Nemours & Co.*, 750 F.2d 1569, 1576 (Fed. Cir. 1984); MPEP §2164.01). The experimentation must not be unduly extensive (*Id.*), however, costly and timely experimentation alone does not constitute undue experimentation. (*U.S. v. Telectronics, Inc.*, 857 F.2d 778, 785 (Fed. Cir. 1988)).

At the time of filing, methods of making and/or obtaining pyridoxal-5-phosphate, pyridoxal, pyridoxine, or pyridoxamine were well known. The claims are not directed to a plethora of pyridoxal-containing compositions and consequently, undue experimentation is not required to make and use the invention. As such the specification is enabling for these compounds even in the absence of working examples directed to these compounds.

The Examiner stated that the specification does not provide support for diseases other than cerebral ischemia. The Examiner's attention is directed to the Background section of the specification, which outlines the main general characteristics of these diseases, as does the general state of the art known at the time of filing. Within the specification, cerebral ischemia is an example of a cerebrovascular disease. Cerebral ischemia, cerebral hemorrhage, ischemic stroke, and hemorrhagic stroke are all cerebrovascular diseases resulting from a similar pathology. Therefore, based on the level of teaching provided by the specification, Applicants respectfully submit that the claims are enabled throughout their scope. Applicants respectfully request that this rejection be withdrawn.

The Examiner's attention is directed to the prosecution of the co-pending US Patent Application 10/254,197 has recently issued as US Patent No. 6,861,439 with claims directed to the use of 3-acylated analogues of pyridoxal-4,5-aminal for the treatment of cerebral ischemia or ischemic stroke. The specification for 6,861,439 also teaches the use of pyridoxal-5'-phosphate in the treatment of cerebral ischemia. Applicant notes that for the reasons discussed above (the 3-acylated analogues of pyridoxal-5'-phosphate are also precursors of pyridoxal-5'-phosphate), the Examiner withdrew a similar lack of enablement rejection and allowed the claims to proceed to allowance.

In view of the foregoing, Applicant respectfully requests reconsideration and withdrawal of the rejection under 35 U.S.C. §112, first paragraph.

Rejection under 35 U.S.C. §103

The Examiner rejects claims 1-6 as being unpatentable over Skochii et al., Likars'kasprav/Ministerstvo okhorony zdorov'ia Ukrainy, (Sept.-Dec., 1994) (9-12) 109-11 (abstract). Applicants have translated the cited reference into English, and a copy has been submitted herewith. The Examiner states that the abstract of Skochii et al. teaches the administration of pyridoxal phosphate in the treatment of cerebral stroke. The Examiner states

that while neither pyridoxal-5'-phosphate or ischemic or hemorrhagic stroke is specifically recited, it would be reasonable to expect the 5'-phosphate salt, as well as any type of cerebral stroke, are broadly encompassed in the recitation. The Examiner further stated that the determination of optimal dosages and modes of administration are parameters that are well within the purview of those skilled in the art through no more than routine experimentation. Applicants respectfully traverse.

To establish a *prima facie* case of obviousness, three criteria must be met--a suggestion or motivation to combine references, a reasonable expectation of success, and the prior art reference teaches or suggests all the claim limitations. MPEP §2143; *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991). In view of the prior art, the Examiner has not established an expectation of success for the use of pyridoxal phosphate to treat cerebral stroke. Applicants respectfully assert that the Examiner has not met the criteria for establishing obviousness under 35 U.S.C. §103(a).

Evident from the translation, Stochii et al. do not teach or suggest that any single component of this cocktail would have any efficiency in treating any disorder, but rather teach that each factor in this cocktail has a specific and critical note in treating brain stroke (see paragraphs 2 and 3 of page 6 of the translation). Skochii et al. disclose a combination therapy comprising, among the other factors, four antioxidants: tocopherol acetate (vitamin E), ascorbic acid (vitamin C), glutamic acid, and pyridoxal phosphate, as well as a lipid stabilizer (which comprises phosphalipids, fatty acids and vitamins). Skochii et al. select pyridoxal phosphate as an antioxidant, but it is at best a very weak antioxidant. Skochii et al. do not teach or suggest the usefulness of using any single component of this cocktail for treating stroke. Therefore, Skochii et al. do not teach or suggest that pyridoxal phosphate itself would be useful for treating stroke.

Furthermore, it is was well known at the time of filing that pyridoxal phosphate would not be used for its antioxidant activity. Thus, upon reading Skochii et al., one would be motivated to select the cocktail as a whole and not selectively use pyridoxal phosphate as an anti-oxidant since subsequent prior art teaches away from selecting pyridoxal phosphate for use as an anti-oxidant. Applicants have submitted Woodside et al. as evidence of the prior art teaching away from the use of pyridoxal phosphate as an anti-oxidant.

Woodside et al. disclose that antioxidants, namely ascorbic acid, α-tocopherol, and β-carotene, but not B-group vitamins, increase the resistance of low-density lipoprotein to

oxidation. In fact, Woodside et al. teach away from the use of B–group vitamins such as vitamin B6 as an antioxidant for the treatment of cardiovascular disease. As stated in the Woodside et al. article, "...while B-group vitamins lower plasma homocysteine they do not have an antioxidant effect. Thus B-group vitamins and antioxidants appear to have separate and independent effects in reducing cardiovascular risk". In view of the subsequent prior art, one would not be motivated to use pyridoxal phosphate since it teaches away from the use of pyridoxal phosphate as an anti-oxidant. Accordingly, the Examiner has not established, from the prior art, an expectation of success for the use of pyridoxal-5'-phosphate, pyridoxal, pyridoxine, or pyridoxamine for treating cerebral ischemia, cerebral hemorrhage, ischemic stroke, or hemorrhagic stroke.

In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. §103(a).

CONCLUSION

In view of the above amendments and remarks, Applicants respectfully requests a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

Respectfully submitted,

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Date: April 26, 2005

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